

### **Asphalt Overlay**

This surface treatment is for structural reinforcement on arterial and collector roads in both urban and rural areas. The depth of an overlay is between 1 and 4 inches. Surface defects and irregularities are repaired prior to adding a new layer of asphalt.

In some instances, a thin layer of asphalt is applied to subdivision or access roads that have surface irregularities but remain structurally sound. This smoothes the surface and corrects some drainage issues. During the overlay process, there are delays to the traveling public.

### **Slurry Seal**

This surface treatment is applied to access and subdivision roads in urban areas to prevent moisture from infiltrating the subgrade. These roads are structurally sound and do not need reinforcement.

Emulsified oil, finely crushed aggregate and water are premixed on a truck and then applied to the road surface. This treatment requires the road be closed for 2 to 4 hours, depending on weather conditions, to allow curing before it can reopen to traffic.

### **Micro Seal**

Micro seal is similar to a slurry seal, only that it uses larger pieces of rock. Cement also can be added to the mixture.

A micro seal dries faster than a slurry seal and is used on multilane roads, which allows traffic to pass on one lane while the other is being treated. To further ease traffic disruptions, sand is shoveled onto intersections so vehicles can drive over the treated surface only minutes after it has been applied.

### **Chip Seal**

This surface treatment is applied to rural roads to seal the surface and prevent moisture from infiltrating the road's subgrade. These roads are structurally sound and do not need reinforcement.

Emulsified oil (.45 gallons per square yard) is applied to the road surface, followed by a covering of approximately 20 pounds of crushed rock per square yard of roadway. The road is then rolled to press the rock into the emulsified oil. The size of the rock, or aggregate, depends on the location of the road and whether a rougher surface is desired for additional traction during inclement weather.

The road is closed during treatment, but traffic is usually allowed to return a few minutes after the work is completed.

**Cape Seal**

This is a surface treatment applied to urban roads. This is a two-step process consisting of a chip seal followed by a slurry seal to tie everything together.

**Rubberized Asphalt Cape Seal**

This is a variation of a cape seal used in urban areas. An asphalt rubber binder, consisting of paving asphalt, oil and crumb rubber from ground-up used tires and natural rubber, is applied to the road, followed by a layer of crushed rock.

The rock is pre-coated with an asphalt binder and delivered hot to the job site for immediate use. The road is rolled to press the coated rock into the asphalt-oil rubber mix. The process is similar to a standard chip seal, with comparable traffic impacts.

In subdivisions, the county will follow this treatment with a slurry seal to further preserve the road. This last step requires closing the road to all traffic for 2 to 4 hours to give the slurry seal time to cure.

**Base Stabilization**

A road that requires base stabilization is rough and uneven and needs major structural repair. The existing surface is ground up, and cement is added and mixed to create a new base for the road. The road is then graded, reshaped and rolled, followed by a surface treatment, which can be anything from a chip seal to an asphalt overlay. There are significant motorist delays during this process.